AMENDMENTS TO THE CLAIMS

Claims 1-17 **(Canceled)**

18. **(Currently Amended)** A method of identifying a compound capable of inhibiting the growth of a pathogenic microorganisms which comprises:

(a) identifying an enzyme involved in the conversion of α-glucose-1-phosphate + ATP into ADP-glucose + Ppi, which enzyme is present in a pathogenic microorganism but is not present in humans;

(b) identifying a compound that inhibits the conversion of α-glucose-1-phosphate + ATP into ADP-glucose + Ppi by binding to ~~an~~said enzyme ~~involved in the conversion of α-glucose-1-phosphate + ATP into ADP-glucose + Ppi~~; and

(c) exposing said pathogenic microorganism to said compound to determine the effect of said compound on the growth of said pathogenic microorganism.

19. **(Canceled)**

20. **(Currently Amended)** ~~A method of identifying a compound capable of inhibiting the growth of pathogenic microorganisms by interfering with energy storage or utilization in said microorganism which comprises identifying a compound that inhibits the activity of~~ The method according to claim 18, wherein said enzyme is ADP glucose pyrophosphorylase (EC 2.7.7.27) ~~by binding to said ADP glucose pyrophosphorylase~~.

21. **(Canceled)**

22. **(Currently Amended)** A method of identifying a compound capable of inhibiting the growth of a pathogenic microorganisms by interfering with the activity of ADP-glucose pyrophosphorylase (EC 2.7.7.27) by binding to said ADP glucose pyrophosphorylase which method comprises:

(a) identifying an enzyme involved in the conversion of α-glucose-1-phosphate + ATP into ADP-glucose + Ppi, which enzyme is present in a pathogenic microorganism but is not present in humans;

(b) identifying a compound that inhibits the conversion of α-glucose-1-phosphate + ATP into ADP-glucose + Ppi by binding to said enzyme; and

(c) incubating a sample of ~~bacteria~~ said pathogenic microorganism in a media in the presence or absence of ~~a test~~ said compound, and assessing the effect on conversion of α-glucose-1-phosphate, wherein a lower level of conversion of α-glucose-1-phosphate in the presence of said ~~test~~ compound, compared with the level of conversion of α-glucose-1-phosphate in the absence of said ~~test~~ compound, indicates that said test compound interferes with the activity of ADP glucose pyrophosphorylase (EC 2.7.7.27) by binding to said ADP glucose pyrophosphorylase.

23. **(Canceled)**

24. **(Currently Amended)** A method of identifying a compound capable of inhibiting the growth of a pathogenic microorganisms by interfering with the activity of ADP glucose pyrophosphorylase (EC 2.7.7.27) which method comprises:

(a) identifying an enzyme involved in the conversion of α-glucose-1-phosphate + ATP into ADP-glucose + Ppi, which enzyme is present in a pathogenic microorganism but is not present in humans;

(b) exposing a substrate comprising ADP glucose pyrophosphorylase (EC 2.7.7.27) to a plurality of test compounds and identifying ~~a~~ an active test compound which binds to said ADP glucose pyrophosphorylase (EC 2.7.7.27); and

(c) exposing said pathogenic microorganism to said compound to determine the

effect of said compound on the growth of said pathogenic microorganism.

25. **(Canceled)**

26. **(Previously Presented)** The method of claim 24, wherein said substrate comprises a plurality of ADP glucose phosphorylase (EC 2.7.7.27) molecules and said test compounds comprise a label to permit identification of a test compound which binds to ADP glucose pyrophosphorylase (EC 2.7.7.27).

27. **(Canceled)**

28. **(Currently Amended)** The method according to any one of claims 18, 20, 22, 24 and 26–~~27~~, wherein said pathogenic microorganism is a member selected from the group consisting of *Chlamydia pneumoniae, Chlamydia trachomatis, Escherichia coli* O157, *Haemophilus influenzae, Mycobacterium leprae, Mycobacterium tuberculosis, Salmonella typhimurium* and *Vibrio cholerae, Streptococcus pneumoniae, Yersinia pestis, Bacillus subtilus* and *Bacillus anthracis*.

29. **(Canceled)**

30. **(Canceled)**

31. **(Canceled)**

32. **(Currently Amended)** The method according to any one of claims 20, 22, 24, 26~~, 27~~ and 28, wherein said ADP glucose pyrophosphorylase (EC 2.7.7.27) is in the form of a purified enzyme product.

33. **(Canceled)**